



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/849,747	05/19/2004	Peter Stokes	CLIP014US	8577
40032	7590	10/05/2007	EXAMINER	
CREATIVE LABS, INC. LEGAL DEPARTMENT 1901 MCCARTHY BLVD MILPITAS, CA 95035			ZHEN, LI B	
			ART UNIT	PAPER NUMBER
			2194	
			MAIL DATE	DELIVERY MODE
			10/05/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

mn

Office Action Summary	Application No. 10/849,747	Applicant(s) STOKES ET AL.	
	Examiner Li B. Zhen	Art Unit 2194	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 19 May 2004.
- 2a) This action is **FINAL**.
- 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-13 is/are pending in the application.
 - 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-13 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some * c) None of:
 - 1. Certified copies of the priority documents have been received.
 - 2. Certified copies of the priority documents have been received in Application No. _____.
 - 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 5/19/2004.
- 4) Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) Notice of Informal Patent Application
- 6) Other: _____

DETAILED ACTION

1. Claims 1 – 13 are pending in the application.

Claim Objections

2. Claims 2 – 8 are objected to because of the following informalities:
 - a. Dependent claims 2 – 7 should start with “The system” as they appear to refer to “A device driver system” of independent claim 1;
 - b. Claim 8, line 12 contains grammatical errors, “card I a USB audio card”.
 - c. Appropriate correction is required.

Claim Rejections - 35 USC § 101

3. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

4. Claims 1 – 13 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claims 1, 8 and 9 recite a device driver system, a driver means and a supplemental device driver implemented in software respectively. The device driver system, driver means and supplemental device driver as recited appears to be software only and is considered functional descriptive material. However, function descriptive material is nonstatutory when claimed as descriptive material per se. When functional descriptive material is recorded on some computer-readable medium, it becomes structurally and functionally interrelated to the medium and will be statutory in most

Art Unit: 2194

cases since use of technology permits the function of the descriptive material to be realized. Since claims 1, 8 and 9 do not recite the device driver system, driver means and supplemental device driver as being recorded on a computer-readable medium, the claims are interpreted as comprising functional descriptive material per se and non statutory. See MPEP § 2106.01.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1 – 13 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,298,370 to Tang et al. hereinafter [Tang].

7. As to claim 1, Tang teaches a software-implemented arrangement [Windows Driver Model; col. 35, lines 28 – 41] for driving at least one hardware device [audio hardware; col. 35, lines 8 – 29] of predetermined functionality from an operating system [col. 14, lines 10 – 26] that communicates with an installed driver for said hardware device [WDM Comm Class Driver supports other legacy comm functions; col. 99, line 65 – col. 100, line 6], a device driving system enabling operation of at least one further

Art Unit: 2194

hardware device of functionality differing from said predetermined functionality and unsupported by said software system [an ActiveDSP audio renderer filter accepts PCM, MPEG, or AC-3 audio streams, and passes the streams through DirectDSP/DirectDSP HAL to VSP hardware for decoding and playback; col. 36, lines 10 – 18]; the device driving system including additional driver means [col. 111, line 65 – col. 112, line 7] interposed between the operating system and the said installed driver and configured to interface directly with at least said operating system [col. 47, lines 25 – 38].

8. As to claim 8, Tang teaches a driver means implemented in software [Windows Driver Model; col. 35, lines 28 – 41] and adaptable for positioning between an operating system [col. 47, lines 25 – 38] and at least one installed audio driver provided with the operating system [WDM Comm Class Driver supports other legacy comm functions; col. 99, line 65 – col. 100, line 6] and coupled to an audio card device [col. 19, lines 25 – 36], said at least one installed audio driver configured to be responsive to selected communications to cause the audio card device to demonstrate predetermined functionality [col. 35, lines 7 – 30] envisaged by the operating system provider [col. 14, lines 10 – 26], the driver means configured to:

receive a first communications for an operation directly from the operating system at a first input interface between the operating system and the driver means [VSP wrapper is not redundant to the audio, MIDI or graphics interface because it replaces and permits virtualization of major hardware elements; col. 18, lines 41 – 50];
and

Art Unit: 2194

forward a second communication for the operation over a first output interface to a first of the at least one installed audio driver [an ActiveDSP audio renderer filter accepts PCM, MPEG, or AC-3 audio streams, and passes the streams through DirectDSP/DirectDSP HAL to VSP hardware for decoding and playback; col. 36, lines 10 – 18], wherein the second communication causes the driver to generate functionality envisaged by the operating system provider when the coupled audio card is a USB audio card supporting the predetermined functionality [col. 48, lines 16 – 40] and to generate functionality not envisaged by the operating system provider when the coupled audio card has 3D positioning of sound functionality that is beyond the predetermined functionality [second VSP block 620 virtualizes 3D audio; col. 110, lines 40 – 55].

9. As to claim 9, Tang teaches a supplemental device driver [Windows Driver Model; col. 35, lines 28 – 41] implemented in software and adaptable for positioning between an operating system [col. 47, lines 25 – 38] and at least one installed device driver provided with the operating system [WDM Comm Class Driver supports other legacy comm functions; col. 99, line 65 – col. 100, line 6] and coupled to a first hardware device [col. 19, lines 25 – 36], said at least one installed driver configured to be responsive to selected communications to cause the first hardware device to demonstrate predetermined functionality [col. 35, lines 7 – 30] envisaged by the operating system provider [col. 14, lines 10 – 26], the supplemental device driver configured to:

Art Unit: 2194

receive a first communications for an operation directly from the operating system at a first input interface between the operating system and the supplemental device driver [VSP wrapper is not redundant to the audio, MIDI or graphics interface because it replaces and permits virtualization of major hardware elements; col. 18, lines 41 – 50]; and

forward a second communication for the operation over a first output interface to a first of the at least one installed driver [an ActiveDSP audio renderer filter accepts PCM, MPEG, or AC-3 audio streams, and passes the streams through DirectDSP/DirectDSP HAL to VSP hardware for decoding and playback; col. 36, lines 10 – 18], wherein the second communication causes the driver to generate functionality envisaged by the operating system provider when the coupled hardware device supports the predetermined functionality [col. 48, lines 16 – 40] and to generate functionality not envisaged by the operating system provider when the coupled hardware device has functionality beyond the predetermined functionality [second VSP block 620 virtualizes 3D audio; col. 110, lines 40 – 55].

10. As to claim 2, Tang teaches the additional driver means is also configured to interface directly with said installed driver, thereby enabling continued and unchanged use of said at least one hardware device of predetermined functionality [col. 47, lines 25 – 38].

Art Unit: 2194

11. As to claim 3, Tang teaches the additional driver means is additionally configured to interface with a further driver which is configured to drive an additional hardware device [col. 110, lines 9 – 53].

12. As to claim 4, Tang teaches the additional driver means is additionally configured to interface with a further driver which is configured to drive an additional hardware device [col. 110, lines 9 – 53].

13. As to claim 5, Tang teaches the at least one hardware device comprise audio devices [col. 48, lines 16 – 40].

14. As to claim 6, Tang teaches the at least one hardware device comprises USB audio hardware and the additional device comprises hardware associated, with 3D positioning of sounds or environmental effects [col. 110, lines 40 – 55].

15. As to claim 7, Tang teaches the operating system is the Windows operating system and the said installed driver comprises a Windows Driver Model (WDM) audio driver [col. 35, lines 16 – 41].

16. As to claim 10, Tang teaches the at least one driver comprises a second driver coupled to a second hardware device and the driving means is further configured to forward the second communication to the second driver [col. 36, lines 10 – 18].

17. As to claim 11, Tang teaches the first hardware device is a USB audio card having predetermined functionality envisaged by the operating system and the second hardware device comprises hardware associated with is 3D positioning of sounds having functionality beyond the predetermined functionality [second VSP block 620 virtualizes 3D audio; col. 110, lines 40 – 55].

18. As to claim 12, Tang teaches the hardware device is a USB audio card having predetermined functionality envisaged by the operating system [col. 48, lines 16 – 40].

19. As to claim 13, Tang teaches the hardware device comprises hardware associated with is 3D positioning of sounds having functionality beyond the predetermined functionality [col. 110, lines 40 – 55].

Conclusion

20. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Patent No. 7,093,265 discloses a system having a driver stack for transparently integrating multi-pathing processes into host operating system environments.

U.S. Patent No. 7,237,101 discloses method for integrating devices with a computer system.

Art Unit: 2194

CONTACT INFORMATION


21. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Li B. Zhen whose telephone number is (571) 272-3768. The examiner can normally be reached on Mon - Fri, 8:30am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Thomson can be reached on 571-272-3718. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Li B. Zhen
Examiner
Art Unit 2194

LBZ

 9/29/2007